Intermarket Analysis

Profiting from Global Market Relationships

JOHN MURPHY

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To Anne, a great poet

and

to Tim, a great brother

Contents

Acknowledgments

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Introduction to Intermarket Analysis

In 1990, I completed a book entitled *Intermarket Technical Analysis: Trading Strategies for the Global Stock, Bond, Commodity, and Currency Markets.* My point in writing it was to show how closely related all the financial markets really are, both domestically and internationally. The book's main thesis was that technical analysts need to broaden their chart focus to take these *intermarket* correlations into consideration. Analysis of the stock market, for example, without consideration of existing trends in the dollar, bond, and commodity markets was simply incomplete. The book suggested that financial markets can be used as leading indicators of other markets and, at times, confirming indicators of related markets. Because the message of my earlier text challenged the *single market* focus of the technical community, some questioned whether this newer approach had any place in the technical field. Many questioned whether intermarket relationships existed at all—and whether they could be used in the forecasting process. The idea that global markets are linked to each other was also viewed with some skepticism. How things have changed in just one decade.

Intermarket analysis is now considered a branch of technical analysis and is becoming increasingly popular. The *Journal of Technical Analysis* (Summer–Autumn 2002) asked the membership of the Market Technicians Association to rate the relative importance of technical disciplines for an academic course on technical analysis. Of the fourteen disciplines included in the poll, intermarket analysis ranked fifth. Intermarket work has come a long way in ten years.

EARLIER BOOK COVERED THE 1980s

My earlier text focused on events in the 1980s starting with the end of the *commodity bubble* at the start of that decade. This ended the hyperinflation of

the 1970s when hard assets like commodities soared and paper assets (like bonds and stocks) soured. The 1980 peak in commodities ushered in a two-decade disinflationary trend that coincided with major bull markets in bonds and stocks. The biggest financial event of the 1980s—the 1987 stock market crash—provided a textbook example of how markets are related to each other and the necessity for paying attention to those related markets. A surge in commodity prices—and a collapse in bond prices—during the first half of 1987 gave ample warning of an impending stock market decline during that year's second half. Three years later during 1990, as the previous book was going to press, global financial markets were just starting to react to Iraq's invasion of Kuwait in August of that year. Gold and oil prices surged—while stock markets around the world fell. Interestingly, thirteen years later (at the start of 2003), market observers were facing the prospect of another Iraq war and were studying anew the 1990–1991 market reactions to look for parallels. History has a way of repeating itself, even in intermarket work.

JAPANESE BUBBLE BURSTS IN 1990

Another important event which happened at the start of 1990 is still having global repercussions more than a decade later. The bubble in the Japanese stock market burst. This started a thirteen-year descent in that market (which represented the world's second largest economy) that turned into a *deflation* (a decline in the prices of goods and services). Over a decade later, western central bankers were studying the Japanese deflation model to find ways to combat increasing signs of deflation in western economies. Some of the charts presented in this book also bolster the view that Japanese deflation was one of the major contributing factors to the *decoupling* of bonds and stocks in the United States years later when rising bond prices starting in 2000 coincided with falling stock prices.

THIRD ANNIVERSARY OF 2000 MARKET TOP

March 10, 2003 marked the third anniversary of the ending of the Nasdaq bubble that signaled the start of the worst bear market in decades. A 50 percent decline in the S&P 500 was the worst since 1974. The Nasdaq's loss of 78 percent was the worst since the stock market crash from 1929–1932 in the midst of the Great Depression. Market historians had to go back to study

these two periods to gain some insight into market behavior. What made comparisons between these two earlier periods complicated was that each of them was caused by a different economic event. The bear market in stocks during the 1970s was associated with a period of rising commodity prices—and hyperinflation. The bear market of the 1930s, however, was associated with a period of economic deflation. While both situations are bad for stocks, deflation is the more difficult to counter.

Starting in 1998, the word *deflation* was being heard for the first time since the 1930s. This happened as a result of the Asian currency crisis that gripped the world during 1997 and 1998. Within five years, global deflation had spread from Asia and was starting to infect global bond and stock markets everywhere—including the United States. More than any other factor, the reappearance of deflation changed intermarket relationships that had existed over the prior forty years. These changes are why I am writing this book—to show what has worked according to the older intermarket model and, more importantly, what has changed. Intermarket analysis is based on relationships (or correlations) between markets. It is not, however, a static model. Correlations between financial markets can change over time. They do not change randomly, however; there is usually a good reason. The main reason for some of the changes that started in the late 1990s was the growing threat of deflation.

THE DEFLATION SCENARIO

In the 1999 revision of my book *Technical Analysis of the Financial Markets*, I included a chapter on intermarket analysis which reviewed the historic relationships that had been working for several decades. I also added a new section which was entitled "Deflation Scenario." This section described the collapse in Asian currency and stock markets starting in the middle of 1997; the severe decline had an especially depressing effect on global commodity markets like copper, gold, and oil. For the first time in generations, analysts starting expressing concern that a beneficial era of *disinflation* (when prices are rising at a slower rate) might turn into a harmful *deflation* (when prices of goods actually fall). How the markets reacted to that initial threat of deflation defined the intermarket model for the next five years. Commodity prices fell while bond prices rose. This was nothing new—falling commodity prices usually produce higher bond prices. What changed, though, was the relationship between bonds and stocks. During 1998, stocks were sold all over the world while money poured into U.S. Treasury bonds in a global search for

safety. In other words, stocks fell while bonds rose. This was unusual and represented the biggest change in the intermarket model. Disinflation (which lasted from 1981 through 1997) is bad for commodities but is good for bonds and stocks. Deflation (which started in 1998) is good for bonds and bad for commodities—but is also bad for stocks. In a deflationary climate, bond prices rise while interest rates fall. Falling interest rates, however, do not help stocks. This explains why a dozen easings by the Federal Reserve in the eighteen months after January 2001 were unable to stop a falling stock market that had peaked at the start of 2000.

INTERMARKET MODEL FROM 1980 TO 1997

This book begins with a quick review of the 1980s, starting with the big intermarket changes that helped launch the greatest stock bull market in history. We will also revisit the 1987 stock market crash—because of its importance in the development of intermarket theory and its role in changing this theory into reality. The 1990 bear market was just starting as I was completing my earlier book. We will study this year in more depth, especially given its relevance to global events thirteen years later. Traditional intermarket relationships held up quite well during the 1994 bear market and continued to do so until 1998.

THEN CAME 1998 AND THINGS CHANGED

The rest of this book deals with market events from 1998 onwards. That year represented a sea change in the intermarket model. We will study market forces leading up to the bursting of the stock market bubble in the spring of 2000—and the ensuing three years of stock market decline. Deflation plays a key role from 1998 on. Global markets became very closely correlated during the late 1990s and the first three years of the new millennium. This was mainly due to global overinvestment in technology stocks during the latter stages of the Nasdaq bubble—and the ensuing global collapse after the bubble burst. Deflationary trends were also global in scope. The fact that virtually all world markets collapsed together after 2000 called into question the wisdom of *global diversification* (when stock investments are made in foreign markets to reduce overall risk). During global bear markets in stocks, all world markets become closely correlated to the downside. This happened during the crash of 1987—and again after 2000. It was also another manifes-

tation of the intermarket reality that financial trends are usually global in nature. This includes the direction of stock markets, interest rates, currency markets, and trends in inflation and deflation.

THE ROLE OF OIL

In 1999, rising oil prices set in motion a series of events that led to the start of a bear market in stocks in the spring of 2000 and the onset of a recession a year later in the spring of 2001. Rising oil prices have contributed to virtually every U.S. recession in the last forty years. 1999 was no exception. The surge in oil prices led the Federal Reserve to tighten interest rates, which helped end the longest economic expansion since the 1960s. This action by the Fed led to an *inverted yield curve* as 2000 started; this is a classic warning sign of stock market weakness and impending recession. All of these trends were clearly visible on the price charts at the time, a fact which is demonstrated in the book. Unfortunately, the economic community—together with most Wall Street analysts—either did not see the classic warning signs of trouble or simply chose to ignore them.

Another change from my previous book is the increasingly important role that *sector rotation* plays in intermarket work. Different stock market sectors take over market leadership at different points in the economic cycle. In 1999, oil stocks were the market's strongest sector. This is usually a bad sign for the economy and the stock market. You will see how valuable sector "signals" were during the crucial years of 1999 and 2000—and how some defensive market sectors started new uptrends just as the Nasdaq peaked.

THE RESURGENCE OF GOLD

During the twenty years from 1980 to 2000, gold was in a major downtrend. This was due to the disinflationary trend of that two-decade period and to the fact that gold generally does poorly during bull markets in stocks. Because gold is bought mainly during times of crisis, there is not much need for it during a super bull market in stocks. A strong dollar during most of those years also kept gold out of favor. This started to change in 2000, however. During that watershed year, the twenty-year bull market in stocks came to an end. At the same time, a seven-year bull market in the U.S. dollar was ending. These two factors combined to light a fire under a moribund gold market. Over the

next three years, gold stocks were the top-performing stock market sector. Interestingly, the gold rally started in 2000—right around the time that deflationary talk started to get louder. This puzzled investors, who believed that gold could only be used as an inflation hedge. History shows that gold stocks did very well in the deflationary climate of the 1930s. Gold's historic role has been as a store of value during times of economic upheaval. Another reason for gold's popularity in deflationary times is the Federal Reserve's attempt to *reflate* the economy. It does this by weakening the dollar in an attempt to create a little inflation, which in turn boosts the price of gold. The Fed tried this in the 1930s and in its more recent battle against deflation in the early 2000s. The strategy worked during the 1930s and appears to be working again seventy years later.

ASSET ALLOCATION AND ECONOMIC FORECASTING

Intermarket work has important applications in the areas of *asset allocation* and economic forecasting. It has long been accepted that the stock market is a leading indicator of the economy. A classic example of this occurred when the U.S. market peaked in March of 2000. It took the economic world twelve months—until March of 2001—to officially declare that a U.S. recession had started. Markets have a way of looking into the future to "discount" economic trends as far away as six months. This is true for all, including the dollar, bonds, and commodities markets. Commodities give us an early warning of deflationary or inflationary trends. The dollar does the same. The direction of bonds tells us whether interest rates are rising or falling—which tells us a lot about the strength or weakness of the economy. And all of these trends subsequently affect the direction of the economy and the stock market.

More importantly, intermarket work helps us to determine which part of the financial spectrum offers the best hope for potential profits. From 2000 through 2002, for example, deflationary tendencies made bonds a much stronger asset class than stocks. At the same time, a falling dollar made gold an attractive alternative to stocks. By charting these intermarket trends, investors have a better of chance of being in the right asset class at the right time—and out of the wrong ones.

By the end of 2002, longer-term intermarket charts were hinting that *hard assets* (like gold and other commodities) were starting to take precedence over *paper assets* (like bonds and stocks) for the first time in twenty years. Charts also showed that the housing sector was one of the few bright spots in an otherwise disappointing stock market and a sluggish economy. Inter-

market analysis showed that the resiliency in REITs and homebuilding stocks was closely linked to the historic drop in interest rates to their lowest level in forty-five years. Charts also showed that 2003 started to see some rotation out of bonds and back into stocks for the first time in three years. This was good for the stock market and the economy, but hinted that the boom in Treasury bonds was nearing completion. Weakness in the dollar and firmer commodity prices also threatened to boost long-term interest rates. This could be bad for the housing sector which had been thriving on falling long-term rates. Although there are no guarantees that those trends will continue, they are examples of how some knowledge of intermarket charting can play an important role in economic analysis and the asset allocation process.

IMPORTANCE OF CHARTS

All of this may start sounding like a lot of economic theory. This is partially the case, for intermarket analysis is based on economic principles. However, it is not theory. Intermarket work is market-driven. There is nothing theoretical about a profit and loss statement. Economists look at statistics to determine the direction of the economy and, by inference, the direction of financial markets. Chartists look at the markets themselves. This is a big difference. While economic statistics are usually *backward-looking*, the markets are *forward-looking*. It is much like comparing the relative merits of using a lagging or a leading indicator. Given the choice, most people would choose the leading indicator. This goes to the heart of technical analysis. One of the basic premises of the technical approach is that the price action in each market (and each stock) is also a leading indicator of its own fundamentals. In that sense, chart analysis is just a shortcut form of economic and fundamental analysis. This is also why the intermarket analyst uses charts.

Another reason that chartists have such a big advantage in intermarket work is that they look at so many different markets. Charts make a daunting task much simpler. In addition, it is not necessary to be an expert in any of the markets. All one needs to do is determine if the line on the chart is going up or down. Intermarket work goes a step further by determining if two related markets are moving in the same direction or in the opposite direction. It does not matter if the charts being compared are those of gold, bond yields, the dollar, the Dow, or the Japanese stock market. You do not have to be a charting expert to do intermarket work, either. The ability to tell up from down is all that is needed. And an open mind.

CHAPTER 1

A Review of the 1980s

To fully understand the dramatic turns in the financial markets that started in 1980, it's necessary to know something about the 1970s. That decade witnessed a virtual explosion in commodity markets, which led to spiraling inflation and rising interest rates. From 1971 to 1980, the Commodity Research Bureau (CRB) Index—which is a basket of commodity prices—appreciated in value by 250 percent. Bond yields rose by 150 percent during the same period and, as a result, bond prices declined. Figure 1.1 shows the close correlation between the CRB Index and the yield on 10-year Treasuries between 1973 and 1987. Long-term rates rose with commodities during the inflationary 1970s and fell with them during the disinflationary 1980s.

The 1970s were not good for stocks, either. The Dow Jones Industrial Average started the decade near 1,000 and ended the decade at about the same level. In the middle of that 10-year period of stock market stagnation, the Dow lost almost half its value. The 1970s were a decade for tangible assets; paper assets were out of favor. By the end of the decade, gold prices had soared to over $700 per ounce. A weak dollar during that period also contributed to the upward spiral in gold and other commodity prices—as well as the relative weakness in bonds and stocks. All this started to change in 1980, when the bubble burst in the commodity markets. Figure 1.2 is a ratio of the Dow Industrials divided by the gold market. The plunge in this ratio during the 1970s reflected the superior performance by gold and other hard assets in that inflationary decade. The ratio bottomed in 1980 after gold peaked. The Dow then bottomed in 1982.

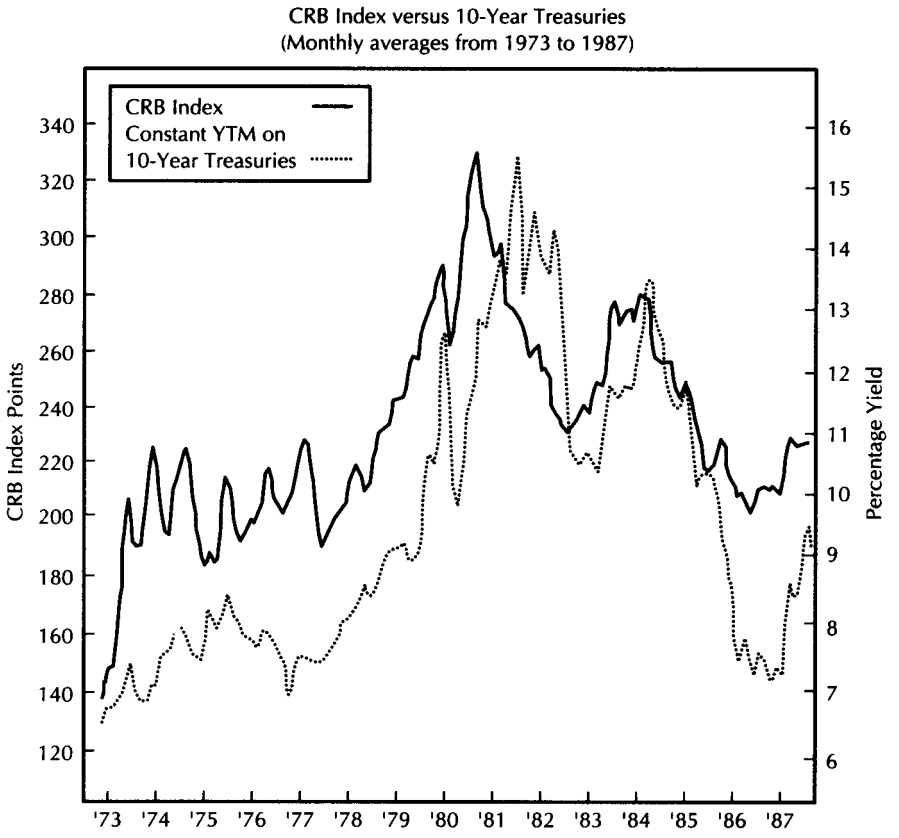

FIGURE 1.1 A demonstration of the positive correlation between the CRB index and 10-year Treasury yields from 1973 to 1987.

COMMODITIES PEAK IN 1980

In late 1980, the bubble in commodity prices suddenly burst. The CRB Index started to fall from a record level of 330 points—and began a 20-year decline during which it lost half of its value. During these same 20 years, gold prices fell from $700 to $250, losing over 60 percent of their value. (It was not until after the stock market peak in 2000 that gold prices started to show signs that their twenty-year bear hibernation had ended.) The 1980 peak in commodity markets ended the inflationary spiral of the 1970s and ushered in an era of falling inflation (or disinflation) that lasted until the end of the twentieth century. Figure 1.3 shows the dramatic rally in a number of commodity indexes during the 1970s and the major peak that occurred in 1980. Commodity prices declined for the next 20 years. Another financial market

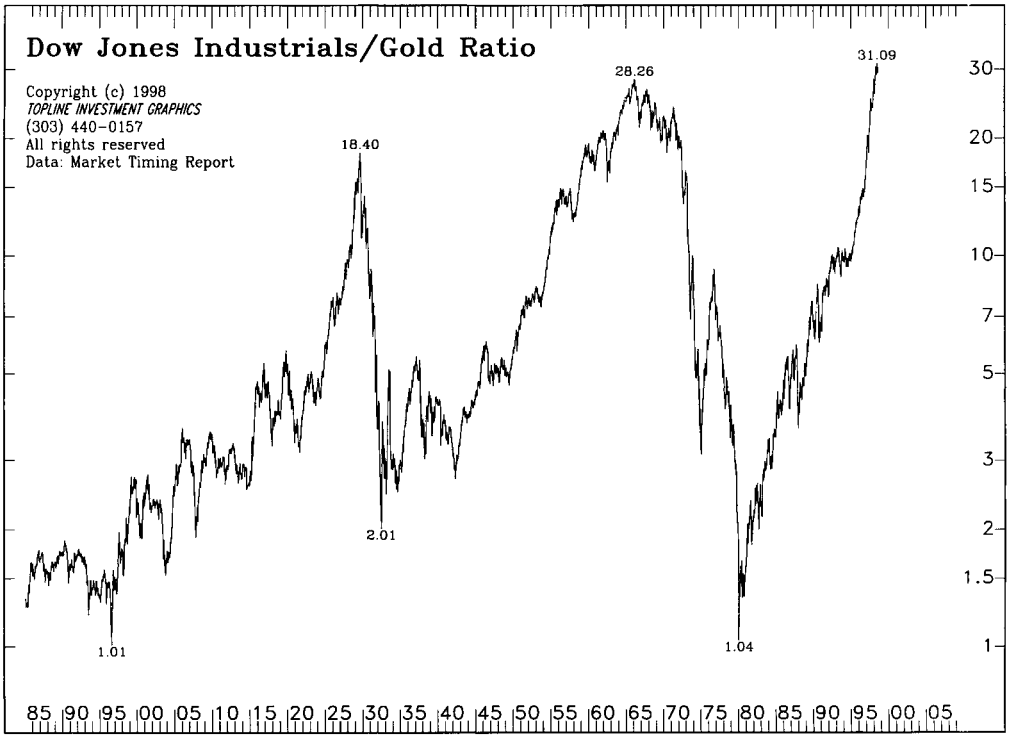

FIGURE 1.2 The plunge in the ratio during the 1970s reflected the superior performance of gold during that inflationary decade.

made a big turn in 1980 that had a lot to do with the big peak in commodities: the U.S. dollar.

DOLLAR BOTTOMS IN 1980

The U.S. dollar hit a major bottom in 1980 and doubled in price over the next five years. One of the key intermarket relationships involved is the *inverse* relationship between commodity prices and the U.S. dollar. A falling dollar is inflationary in nature, and usually coincides with rising commodity prices (especially gold). A rising dollar has the opposite effect and is bearish for commodities and gold. This is why the significant upturn in the U.S. currency in 1980 was such an important ingredient in the historic turn from hyperinflation to disinflation that characterized the next 20 years. (Starting in year 2002, a major decline in the U.S. dollar contributed to a major upturn in gold and other commodities.)

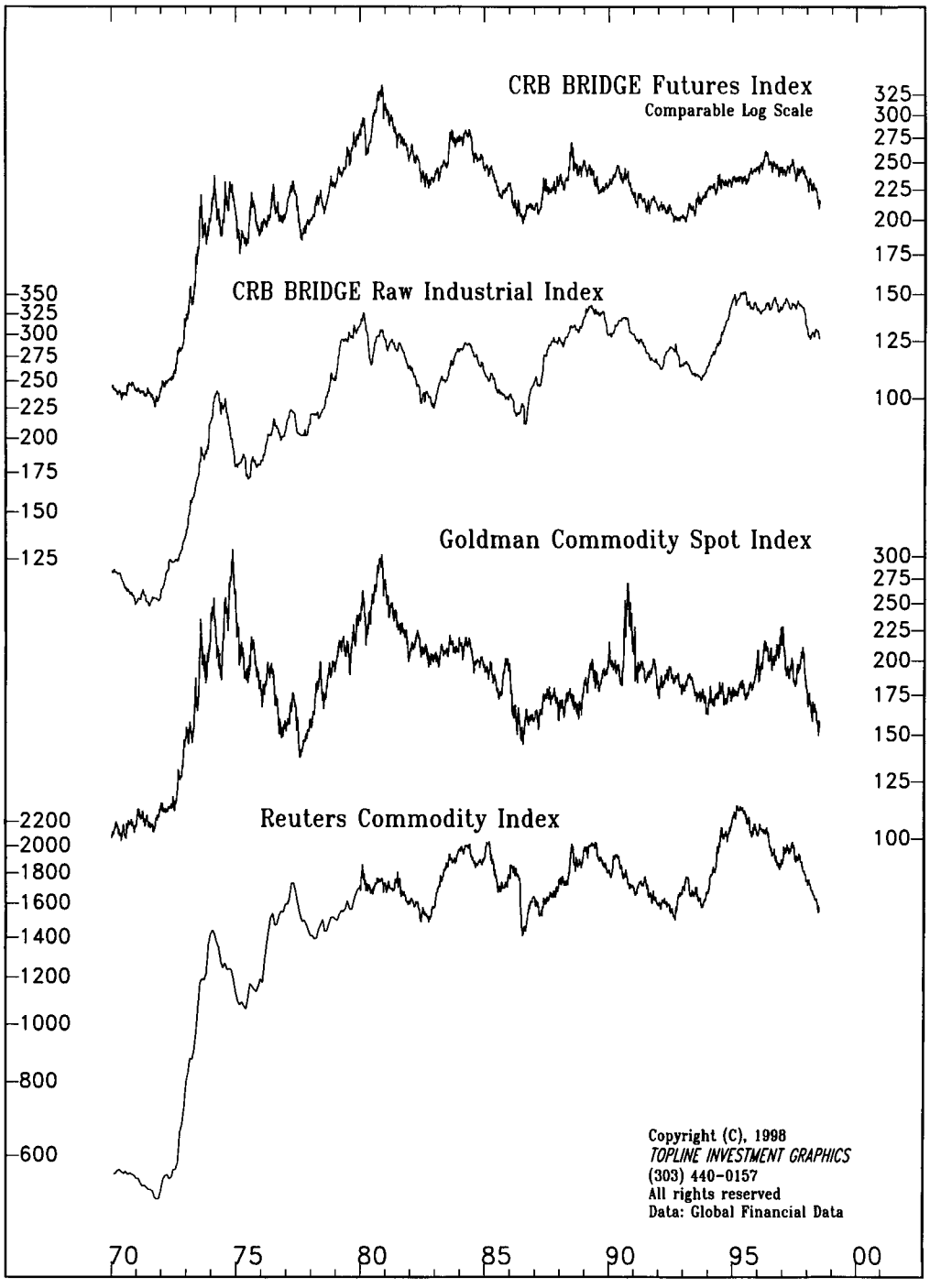

FIGURE 1.3 A number of commodities indexes show the dramatic rally during the 1970s and the major commodity peak during 1980.

BONDS BOTTOM IN 1981

Another key intermarket relationship has to do with bond and commodity prices. They trend in opposite directions. Rising commodity prices (like those seen in the 1970s) signal rising inflation pressure, which puts upward pressure on interest rates and downward pressure on bond prices. (Bond prices and bond yields trend in opposite directions.) Commodity prices often change direction ahead of bonds, which also makes them leading indicators of bonds at important turning points. At the start of the 1980s, it took a year for the drop in commodities to push the bond market higher.

During the second half of 1981, bond yields peaked near 15 percent. They fell to half that level (7 percent) within five years, which caused a major upturn in bond prices. The tide had turned. The stock market, which had been held back for a decade by rising interest rates, soon got an enormous boost from falling bond yields (and rising bond prices).

STOCKS BOTTOM IN 1982

During the summer of 1982, within a year of the bond market bottom, the biggest bull run in stock market history started—and lasted for almost two decades. The fact that the bond market bottomed ahead of stocks is also part of the normal pattern. The bond market has a history of turning ahead of stocks and is therefore viewed as a leading indicator of the stock market. The intermarket scenario had completely reversed itself at the start of the 1980s. Hard assets (like commodities) were in decline, while paper assets (bonds and stocks) were back in favor.

This turning point was one of the clearest examples of how intermarket relationships play out. Notice that four different market groups were involved: currencies, commodities, bonds, and stocks. All four played a major role as the inflationary 1970s ended and the disinflationary 1980s began. Let's review the groundrules for how the financial markets normally interact with each other, which form the basis for our intermarket work.

HOW THE FOUR MARKET GROUPS INTERRELATE

Intermarket analysis involves the simultaneous analysis of the four financial markets—currencies, commodities, bonds, and stocks. It is how these four

markets interact with each other that gives them their predictive value. Here is how they interrelate:

- The U.S. dollar trends in the opposite direction of commodities
- A falling dollar is bullish for commodities; a rising dollar is bearish
- Commodities trend in the opposite direction of bond prices
- Therefore, commodities trend in the same direction as interest rates
- Rising commodities coincide with rising interest rates and falling bond prices
- Falling commodities coincide with falling interest rates and rising bond prices
- Bond prices normally trend in the same direction as stock prices
- Rising bond prices are normally good for stocks; falling bond prices are bad
- Therefore, falling interest rates are normally good for stocks; rising rates are bad
- The bond market, however, normally changes direction ahead of stocks
- A rising dollar is good for U.S. stocks and bonds; a falling dollar can be bad
- A falling dollar is bad for bonds and stocks when commodities are rising
- During a deflation (which is relatively rare), bond prices rise while stocks fall

The list sums up the key intermarket relationships between the four market groups—at least as they are in a normal inflationary or disinflationary environment, the likes of which existed during the second half of the last century. This held up especially well during the 1970s, the 1980s, and most of the 1990s. (The last item in the preceding list which refers to deflation was not normal in the postwar era. Later in the book I explain how deflationary pressures starting in 1997 and 1998 changed the normal relationship that had existed between bonds and stocks.) With a basic understanding of intermarket relationships, it is easier to see how well the markets followed that script at the start of the 1980s. A rising dollar led to falling commodities, which led to rising bond prices, which led to rising stock prices. Things stayed pretty much this way until 1987.

1987 STOCK MARKET CRASH REVISITED

The stock market crash during the second half of 1987 was an even more dramatic example of the necessity for intermarket awareness. It happened swiftly and the results were dramatic and painful. Those who ignored the

action in related markets during the first half of that year were blindsided by the market collapse during the second half. As a result, they sought out scapegoats like *program trading* and *portfolio insurance* (futures-related strategies that can exaggerate stock market declines) to explain the carnage. While these two factors no doubt added to the steepness of the stock market decline, they did not cause it. The real explanation for the stock market crash that year is much easier to explain, but only if viewed from an intermarket perspective. It started in the bond and commodity pits in the spring of that year.

COMMODITIES RISE, BONDS FALL DURING SPRING OF 1987

During the four years after 1982, two of the main supporting factors behind the stock market advance were falling commodity prices (low inflation) and rising bond prices (falling interest rates). In 1986, both of those markets started to level off; commodities stopped going down and bond prices stopped going up. The intermarket picture did not really turn dangerous, however, until the spring of 1987. In April of that year, the CRB Index of commodity prices turned sharply higher and "broke out" to the highest level in a year. At the same time, bond prices went into a virtual freefall. (Rising commodity prices usually produce lower bond prices.) These intermarket trend changes removed two of the bullish props under the stock market advance and gave an early warning that the market rally was on weak footing. Figure 1.4 shows the inverse relationship between bond and commodity prices from 1985 to 1987. It shows the CRB Index rising above a *neckline* (a trendline drawn over previous peaks) in the spring of 1987 (which completed a bullish *head and shoulders* bottom) just as bond prices were falling under the lower trendline in a yearlong triangular pattern—a bad combination for stocks since it suggested that rising inflation was pushing interest rates higher.

STOCK MARKET PEAKS IN AUGUST

The stock market rally continued for another four months into August 1987 before finally peaking. The fact that bond prices peaked four months ahead of stocks demonstrates the tendency for bonds to turn ahead of stocks. Again,

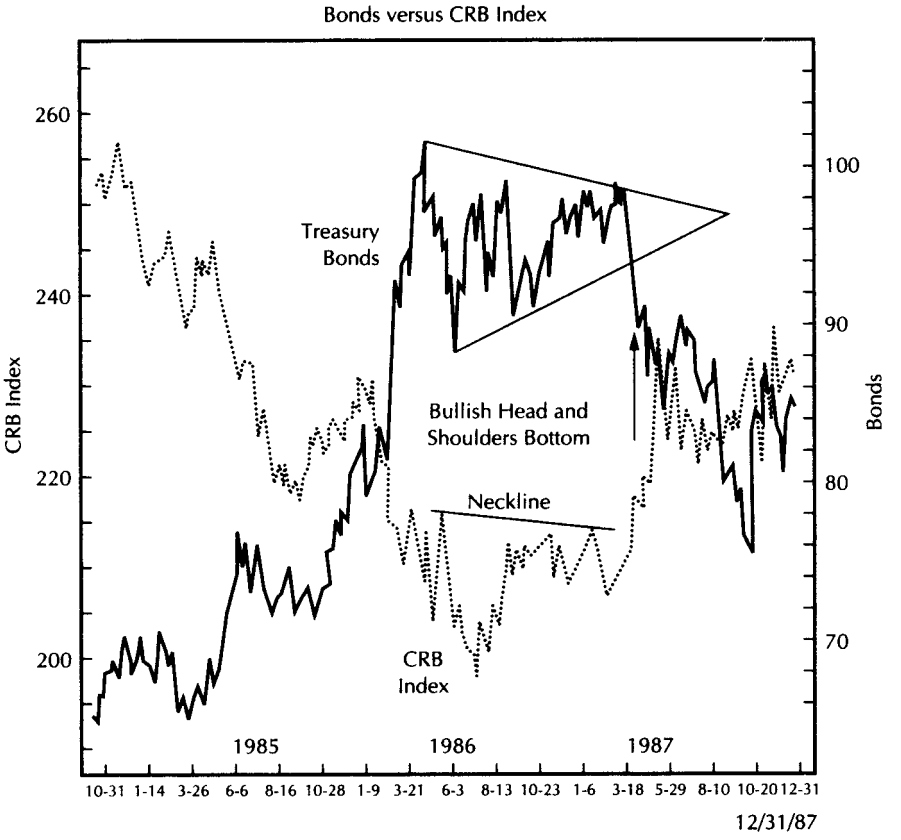

FIGURE 1.4 The inverse relationship between bond prices and commodities can be seen from 1985 through 1987. The bond market collapse in the spring of 1987 coincided with a bullish breakout in commodities.

bonds are considered to be leading indicators of stocks. Figure 1.5 shows the divergence between bond and stock prices from the spring of 1987 (when bonds peaked) until August (when stocks peaked). Bonds fulfilled their role as a leading indicator of stocks. By October, bond yields had climbed above 10 percent. Probably more than any other factor, this jump in interest rates to double-digit levels caused the October stock market crash. Figure 1.6 shows that the October 1987 plunge in stocks followed closely after bond yields climbed over 10 percent. In addition, the U.S. dollar played a role.

DOLLAR FALLS WITH STOCKS

The dollar, which had been declining earlier in the year, started a rebound in May that lasted into the summer. This rebound ended in August as the stock

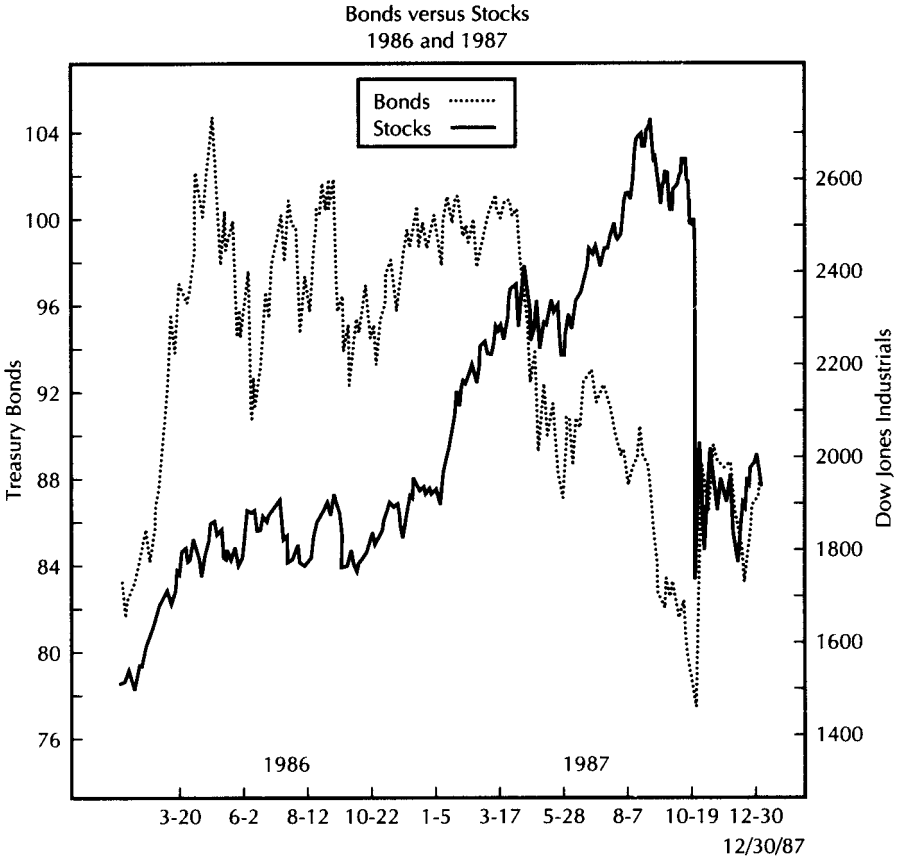

FIGURE 1.5 Bonds versus stocks during 1986 and 1987. Bonds collapsed in April of 1987 and preceded the August peak in stocks by four months.

market peaked. Both markets then fell together. A second rally attempt by the dollar during October also failed, and its subsequent plunge coincided almost exactly with the stock market crash. Figure 1.7 shows the close correlation between the peaks in the dollar and stocks during August and October 1987. Consider the sequence of events going into the fall of 1987. Commodity prices had turned sharply higher, fueling fears of renewed inflation. At the same time, interest rates soared to double digits. The U.S. dollar suddenly went into freefall (fueling even more inflation fears). Is it any wonder that the stock market finally ran into trouble? Given all of the bearish activity in the surrounding markets, it is surprising that the stock market held up as well as it did for as long as it did. There were plenty of reasons why the stock market should have sold off in late 1987. Most of those reasons were visible in the action of surrounding financial markets—like commodi-